Introduction

The 2005 VLAP Sampling Season

The Volunteer Lake Assessment Program (VLAP) celebrated its twentieth anniversary in 2005. A new volunteer participation record was set this season as a total of 161 lakes were sampled by volunteers throughout the state. In addition, approximately 450 volunteer monitors participated in the program!

DES would like to extend a special welcome to those volunteer monitoring groups that joined VLAP for the first time this year; these volunteers represent the following waterbodies: Sandown Pond in Sanbornton; Martin Meadow Pond in Lancaster; Otternick Pond in Hudson; Angle Pond in Sandown; Contention Pond in Hillsboro; Lake Pemigewasset in Meredith; and French Pond in Haverhill.

And, we welcome back our friends and new monitors at Pequawket Pond in Conway, Gregg Lake in Antrim, and the Brentwood Mitigation Wetlands in Brentwood, who rejoined VLAP during the 2005 season.

2005 Weather Conditions in New Hampshire

The Summer of 2005 was a summer of extremes. As many of you may remember, May and June were marked by numerous rainy days. The rain that fell during this period was often very intense and caused a great deal of sediment and nutrient loading into waterbodies throughout the state. As a result, many of you reported much less than average transparency readings in May, June, and even July.

July was hot and humid and most lakes heated up rapidly. The nutrient-enriched warm water created ideal conditions for algae (microscopic plant) and a greater abundance of aquatic plants (macrophytes), including bladderwort in many lakes and ponds. August was relatively warm and dry which caused tributaries to dry and deeper transparency readings were measured at most deep spots.

2005 Program Updates

During the annual biologist visit, the biologist may have helped you take Secchi Disk transparency readings with and without the use of a viewscope (a white plastic PVC pipe with a clear plexiglass end). The purpose of this exercise was to determine if the viewscope made it easier to view the Secchi Disk by reducing the amount of glare and wave action on the water surface. Readings with and without the viewscope were collected at different times of day under different weather conditions at many lakes. While the data are still being analyzed, it appears that, under certain conditions, the viewscope does increase the depth to which the Secchi Disk can been seen. Unfortunately, since the majority of the groups participating VLAP have never used a viewscope before, switching to using viewscope would make it difficult to compare transparency data collected without a viewscope in the past. Stay tuned for the 2006 newsletter in which the use of a viewscope in VLAP sampling will be discussed in greater detail.

2005 Annual Report Updates

Past VLAP Annual Reports have compared individual VLAP lake data to calculated state **means** for most parameters. However, since **means** can be affected by **outlier data** (a value far from most others in a set of data), it is more appropriate to compare your lake data to calculated state **medians** for each parameter. A **median** is a value in an ordered set of values below and above which there is an equal number of values (i.e.; the 50% percentile). **Medians** are not typically affected by outlier data. You may notice that the comparison lines on the chlorophyll and transparency graphs have been moved down because the statewide results for these parameters was skewed due to atypically high chlorophyll and deep transparency readings. The comparison lines on the phosphorus graphs have remained unchanged as the median statewide values have been used for comparison purposes for many years.

Also, an additional reference line, referred to as the **"Similar Median"** line, is included on the chlorophyll, transparency, and total phosphorus graphs this year. Using data collected from all of the state's public lakes and ponds through the DES Lake Survey Program, we are now able to compare data collected from your lake or pond to data collected from "similar" lakes or ponds in the state. Specifically, lakes and ponds in New Hampshire have been grouped into ten different categories based on maximum depth and lake volume. While this is a simple classification scheme, it can be useful in comparing the quliaty of your lake to waterbodies of similar depth and volume. To find out what group your lake or pond is in and what the basic statistics are that describe the data for that group, refer to Appendix F.

Concluding Remarks

Please read the "Observations and Recommendations" and "Data Quality Assessment & Quality Control" sections of your report carefully, and pay special attention to the recommendations that we have made to improve the quality or your lake as well as your current sampling program.

In Appendix D, you will find this year's Special Topic Article "Lake Foam – Natural or Caused by Laundry Detergent?" While lake foam is typically a natural occurrence, it can indicate that laundry detergent, as well as other household pollutants, may be leaching into surface waters and eventually into your lake. You will learn how to test lake foam to better determine what is causing it.

We realize that there is a lot of information to digest in the following pages. If you have any questions regarding your 2005 report, please feel free to call us.

See you soon!

Sincerely,

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